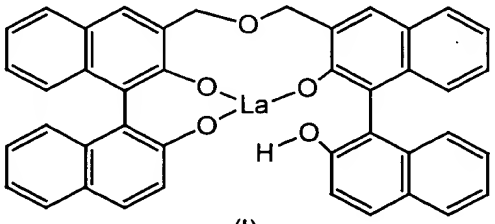
What is claimed is:

1. A catalyst composition comprising a lanthanum-linked BINOL complex selected from the list consisting of;
   (i) an unsubstituted lanthanum-linked BINOL complex of general formula (I), and
   (ii) a substituted lanthanum-linked BINOL complex of general formula (I), wherein at least one of the hydrogen atoms on at least one of the aromatic rings of the complex is substituted with a substituting group.



(I)

2. A catalyst according to claim 1 wherein the lanthanum-linked BINOL complex is unsubstituted (R,R)-lanthanum-linked-BINOL.

3. A catalyst according to claim 1 wherein the substituting group is selected from the list comprising an alkyl group, an aryl group, a halide, a, nitro group, an amino group and a sulphonyl group.

4. The use of a lanthanum-linked BINOL complex of general formula (I) as a catalyst for a Michael addition reaction.

5. A use according to claim 4 wherein the Michael addition reaction provides a Michael adduct of a ß-dicarbonyl compound and an enone selected from the list consisting of a cyclic enone and an acyclic enone.

6. A method of performing a Michael addition reaction comprising reacting a compound that forms an enolate ion and a α,β-unsaturated carbonyl compound in the presence of a catalyst composition comprising a lanthanum-linked BINOL complex of general formula (I).

7. A method according to claim 6 wherein the compound that forms an enolate ion is a ß-dicarbonyl compound and the α,β-unsaturated carbonyl compound is an enone selected from the list consisting of a cyclic enone and an acyclic enone.

8. A method according to claim 6 wherein the lanthanum-linked BINOL complex is unsubstituted (R,R)-lanthanum-linked-BINOL

9. A method according to claim 6 wherein the lanthanum linked BINOL complex is recovered from the completed reaction by a process comprising the steps of;

(i) precipitation of the lanthanum-linked BINOL complex from the reaction mixture by addition of a suitable solvent,

(ii) removal of the Michael adduct-containing supernatant solution by filtration or decantation, and

(iii) drying the lanthanum-linked-BINOL complex.